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10/765,554	01/27/2004	David L. McClintock	016295.1517	1645

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EXAMINER	
CRAWFORD, JACINTA M	
ART UNIT	PAPER NUMBER
2609	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/765,554	MCCLINTOCK ET AL.	
	Examiner	Art Unit	
	Jacinta Crawford	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/27/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

System and Apparatus For Providing Dual Independent Displays

Claim Objections

1. Claim 13 is objected to because of the following informalities: All claims should end with a period.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 14 recites the limitation, "information handling system comprising a housing, wherein the video display controller is **generally** within the housing." The term "generally"

implies that something occurs often but not all the time. Therefore, it is indefinite. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-14, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lafleur (US 7,123,248) in view of Trottier et al. (US 6,903,706).

As to claim 1, Lafleur disclose a video display controller (Figure 3, element 2), comprising:

a graphics processing unit (Figure 3, element 4, video processor) adapted to receive input and transmit output to one or more display devices (column 3, lines 50-60); and

a single display device connector (Figure 3, element 6, DVI-I connector) in

communication with the graphics processing unit (Figure 3, elements 12a and 14a notes communication);

wherein the video display controller is adapted to control a first display device (Figure 3, element 16a) and a second display device (Figure 3, element 16b) through the display device connector (Figure 3, element 6, DVI-I).

Lafleur differs from the invention defined in claim 1 in that Lafleur does not disclose the video controller independently controlling a first display and a second display.

Trottier et al. disclose a video controller independently controlling a first display and a second display (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lafleur's video display controller with Trottier et al.'s method of controlling displays independently to provide more features and options for displays to be used for various multi-purpose tasks.

As to claim 2, Lafleur discloses the video display controller (Figure 3, element 2) where the display device connector is a DVI-I connector (Figure 3, element 6; column 3, lines 46-47).

As to claim 3, Lafleur discloses the video display controller where the first display device (Figure 3, element 16a) is an analog display device (Figure 3, element 14a).

As to claim 4, Lafleur discloses the video display controller where the second display device (Figure 3, element 16b) is a digital display device (element 12a).

As to claim 5, Lafleur discloses the video display controller comprising a first control channel and a second control channel (Figure 4).

As to claim 6, Lafleur discloses the video display controller where the first control channel is adapted to use analog.

Lafleur discloses remapping the TMDS signals and replacing them with analog signals for dual display outputs (see Figure 4 and column 4, lines 16-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate this same method using Display Data Channel Command Interface.

As to claim 7, Lafleur discloses the video display controller where the second control channel is adapted to use analog.

Lafleur discloses remapping the TMDS signals and replacing them with analog signals for dual display outputs (see Figure 4 and column 4, lines 16-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the channel to use Display Data Channel Command Interface.

As to claim 8, Lafleur discloses a dongle (Figure 3, element 18; column 3, lines 48-49), for connecting a video display controller (Figure 3, element 2) with a first display device (Figure 3, element 16a) and a second display device (Figure 3, element 16b), the video display controller comprising a graphics processing unit (Figure 3, element 4, video processor) adapted to receive input and transmit output to one or more display devices (column 3, lines 50-60), the video display controller further comprising a single display device connector (Figure 3, element 6, DVI-I connector) in communication with the graphics processing unit (Figure 3, elements 12a and 14a notes communication), and wherein the video display controller is adapted to control the first display device (Figure 3, element 16a) and the second display device (Figure 3, element 16b) through the display device connector (Figure 3, element 6, DVI-I connector), the dongle comprising:

routing circuitry capable of:

routing a first video channel and a first control channel from the video display controller to the first display device (Figure 3, elements 4 to 6 to 16a), and routing a second video channel and a second control channel from the video display controller to the second display device (Figure 3, elements 4 to 6 to 16b)(NOTE: arrows routing the channels to the appropriate display device).

Lafleur differs from the invention defined in claim 8 in that Lafleur does not disclose the video controller independently controlling a first display and a second display.

Trottier et al. disclose a video controller independently controlling a first display and a second display (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lafleur's video display controller with Trottier et al.'s method of controlling displays independently to provide more features and options for displays to be used for various multi-purpose tasks.

As to claim 9, Lafleur discloses the dongle where the first video channel is a TMDS channel (Figure 4) and the second video channel is an analog VGA channel (Figure 4).

As to claim 10, Lafleur discloses the dongle where the first video channel is a TMDS channel (Figure 4) and the second video channel is a TMDS channel (Figure 4).

As to claim 11, Lafleur discloses the dongle where the first control channel and the second control channel are adapted to use analog (Figure 4 and column 4, lines 16-28).

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate this same method using Display Data Channel Command Interface.

As to claim 12, Lafleur does not disclose the dongle comprising a dongle detection circuit, wherein the dongle detection circuit signals the video display controller that the dongle is attached to the video display controller.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a detection circuit to detect when the dongle is attached to the video display controller in order to control and properly implement the control channels to the appropriate display.

As to claim 13, Lafleur discloses an information handling system, comprising:

a first display device (Figure 3, element 16a);

a second display device (Figure 3, element 16b);

a video display controller (Figure 3, element 2) in communication with the first display device and the second display device (Figure 3: note the communication is denoted by the arrows), the video display controller comprising:

a graphics processing unit (Figure 3, element 4, video processor) adapted to receive input and transmit output to one or more display devices (column 3, lines 50-60); and

a single display device connector (Figure 3, element 6, DVI-I connector) in communication with the graphics processing unit (Figure 3, elements, 12a and 14a);

wherein the video display controller is adapted to control the first display device (Figure 3, element 16a) and the second display device (Figure 3, element 16b) through the single display device connector (Figure 3, element 6, DVI-I connector).

Lafleur differs from the invention defined in claim 13 in that Lafleur does not disclose the video controller independently controlling a first display and a second display.

Trottier et al. disclose a video controller independently controlling a first display and a second display (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lafleur's video display controller with Trottier et al.'s method of controlling displays independently to provide more features and options for displays to be used for various multi-purpose tasks.

As to claim 14, Lafleur modified with Trottier et al. do not disclose the information handling system comprising a housing, wherein the video display controller is generally within the housing.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a housing for the video display controller to serve as a protection for the internal components of the device.

As to claim 16, Lafleur modified with Trottier et al. do not disclose the information handling system where the housing is a laptop housing.

The Examiner takes an official notice as to the laptop housing.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a laptop housing because laptop housing are relatively small and thin and will ultimately reduce the size of the overall device.

As to claim 17, Lafleur discloses the information handling system where the first display device (Figure 3, element 16a) is an analog display device (Figure 3, 14a).

As to claim 18, Lafleur discloses the information handling system where the second display device (Figure 3, element 16b) is a digital display device (Figure 3, element 12a).

As to claim 19, Lafleur discloses the information handling system where the second display device is capable of receiving TMDS (Figure 4).

As to claim 20, Lafleur discloses the information handling system comprising: a dongle (Figure 3, element 18; column 3, lines 48-49) comprising circuitry capable of:
routing a first video channel and a first control channel from the video display controller to the first display device (Figure 3, elements 4 to 6 to 16a), and routing a second video channel and a second control channel from the

video display controller to the second display device (Figure 3, elements 4 to 6 to 16b)(NOTE: arrows routing the channels to the appropriate display device).

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lafleur (US 7,123,248) and Trottier et al. (US 6,903,706) as applied to claim 14 above, and further in view of Reichle (US 2005/0118880).

As to claim 15, Lafleur modified with Trottier et al. do not disclose the information handling system where the housing is a Small Form Factor (SFF) housing.

Reichle discloses the information handling system where the housing is a Small Form Factor (SFF) housing ([0045], lines 7-11).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a Small Form Factor housing to reduce the size of the housing, which will ultimately reduce the overall size of the device.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mori et al. (US 2004/0046707), Kim (US 2005/0081255), and Clark (US 5,949,437)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacinta Crawford whose telephone number is (571) 270-1539. The examiner can normally be reached on M-F 8:00a.m. - 5:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 270-1550. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMC

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SUPERVISORY PATENT EXAMINER